



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0991; Project Identifier AD-2022-00155-T]

RIN 2120-AA64

Airworthiness Directives; Learjet, Inc., Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for all Learjet, Inc., Model 45 airplanes. This proposed AD was prompted by a determination that new or more restrictive airworthiness limitations are necessary. This proposed AD would require revising the existing inspection program to incorporate reduced inspection intervals for the anti-ice manifold assembly. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to www.regulations.gov. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Learjet, Inc., One Learjet Way, Wichita, KS 67209-2942; telephone 316-946-2000; fax 316-946-2220; email ac.ict@aero.bombardier.com; Internet www.bombardier.com. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Examining the AD Docket

You may examine the AD docket at www.regulations.gov by searching for and locating Docket No. FAA-2022-0991; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Adam Hein, Aerospace Engineer, Mechanical Systems and Propulsion Section, FAA, Wichita ACO Branch, 1801 S Airport Road, Wichita, KS 67209; telephone (316) 946-4116; email: adam.hein@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2022-0991; Project Identifier AD-2022-00155-T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to www.regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Adam Hein, Aerospace Engineer, Mechanical Systems and Propulsion Section, FAA, Wichita ACO Branch, 1801 S Airport Road, Wichita, KS 67209; telephone (316) 946-4116; email: adam.hein@faa.gov. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued AD 2001-03-05, Amendment 39-12109 (66 FR 10353, February 15, 2001) (AD 2001-03-05), for certain Learjet Model 45 airplanes. AD 2001-03-05 requires, among other actions, revising the existing Learjet 45 maintenance program to incorporate additional inspections and maintenance practices for the anti-ice manifold assembly. AD 2001-03-05 resulted from anti-ice system difficulties on a Learjet Model 45 airplane, generating a warning to the flightcrew of an overheat condition of the

horizontal stabilizer. The FAA issued AD 2001-03-05 to address metal fragments breaking off the anti-ice manifold assembly due to fatigue, which could block a duct in the anti-ice system and result in an unannounced loss of ice protection.

AD 2001-03-05 mandates a 600-hour repetitive inspection interval of an earlier design/part number of the anti-ice manifold as specified in the Learjet 45 maintenance program revision. The part was subsequently redesigned outside the scope of AD 2001-03-05, and the inspection interval for airplanes with the redesigned part was extended to 1,200 flight hours by Learjet.

Since the FAA issued AD 2001-03-05, the design approval holder determined that the design improvements made to the anti-ice manifold assembly did not fully address the original issue of vane cracking, so the 1,200-hour inspection on the redesigned part is insufficient. However, the FAA determined that a repetitive inspection interval of 600 flight hours is sufficient to address the unsafe condition. Therefore, this proposed AD would require revising the existing inspection program to incorporate a reduced 600-hour inspection interval for the redesigned part. Accomplishing the proposed actions would terminate the requirements of paragraph (c) of AD 2001-03-05.

The FAA is proposing this AD to address metal fragments breaking off the anti-ice manifold assembly due to fatigue, which could block a duct in the anti-ice system and result in an unannounced loss of ice protection and subsequent loss of control of the airplane.

FAA's Determination

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Related Service Information under 1 CFR Part 51

The FAA reviewed Learjet 40 Maintenance Manual Temporary Revision (TR) 04-33 and Learjet 45 Maintenance Manual TR 04-48, both dated January 18, 2022. This service information specifies reduced inspection intervals for the anti-ice manifold assembly.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

Proposed AD Requirements in this NPRM

This proposed AD would require revising the existing inspection program to incorporate reduced inspection intervals for the anti-ice manifold assembly.

This proposed AD would require revisions to certain operator maintenance documents to include new actions (e.g., inspections). Compliance with these actions is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by this proposed AD, the operator may not be able to accomplish the actions described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval for an alternative method of compliance according to paragraph (k) of this proposed AD.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 443 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

Estimated costs				
Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection program revision	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$37,655

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

Learjet, Inc.: Docket No. FAA-2022-0991; Project Identifier AD-2022-00155-T.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD affects AD 2001-03-05, Amendment 39-12109 (66 FR 10353, February 15, 2001) (AD 2001-03-05).

(c) Applicability

This AD applies to all Learjet, Inc., Model 45 (Learjet 40), Model 45 (Learjet 45), Model 45 (Learjet 70), and Model 45 (Learjet 75) airplanes, serial numbers 45-002 through 45-556 inclusive, and 45-2001 through 45-2146 inclusive, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 36, Pneumatic.

(e) Unsafe Condition

This AD was prompted by a determination that new or more restrictive airworthiness limitations are necessary. The FAA is issuing this AD to address metal fragments breaking off the anti-ice manifold assembly due to fatigue, which could block

a duct in the anti-ice system and result in an unannounced loss of ice protection and subsequent loss of control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Maintenance or Inspection Program Revision

(1) For Learjet 40 and 45 variants: Within 60 days after the effective date of this AD, revise the existing inspection program by incorporating the information in Learjet 40 Maintenance Manual Temporary Revision (TR) 04-33 or Learjet 45 Maintenance Manual TR 04-48, both dated January 18, 2022, as applicable. The initial compliance time for the inspection is at the applicable time specified in paragraph (g)(1)(i) or (ii) of this AD.

(i) For airplanes with more than 600 flight hours since the most recent inspection of the anti-ice manifold assembly was performed as of the effective date of this AD: Do the inspection within 100 flight hours or 60 days after the effective date of this AD, whichever occurs first.

(ii) For airplanes with 600 flight hours or less since the most recent inspection of the anti-ice manifold assembly was performed as of the effective date of this AD: Do the inspection within 600 flight hours after the most recent inspection or within 100 flight hours after the effective date of this AD, whichever occurs later.

(2) For Learjet 70 and 75 variants: Within 60 days after the effective date of this AD, revise the existing inspection program to incorporate the information identified in figure 1 to paragraph (g)(2) of this AD. The initial compliance time for the inspection is at the applicable time specified in paragraph (g)(2)(i) or (ii) of this AD.

Figure 1 to paragraph (g)(2) – Anti-Ice Inspection Tasks

IRN number	Task Description	Task interval	Model/Serial Effectivity
3010006	** Anti-ice Manifold - Perform Borescope Inspection	600 flight hours (T)	Learjet 70/75: 45-0368, 45-0446 45-0456 through 45-2000, 45-2129, 45-2134 through 45-4000

(i) For airplanes with more than 600 flight hours since the most recent inspection of the anti-ice manifold assembly was performed as of the effective date of this AD: Do the inspection within 100 flight hours or 60 days after the effective date of this AD, whichever occurs first.

(ii) For airplanes with 600 flight hours or less since the most recent inspection of the anti-ice manifold assembly was performed as of the effective date of this AD: Do the inspection within 600 flight hours after the most recent inspection or within 100 flight hours after the effective date of this AD, whichever occurs later.

(h) No Alternative Actions or Intervals

After the existing inspection program has been revised as required by paragraph (g) of this AD, no alternative actions (e.g., inspections) or intervals, may be used unless the actions and intervals are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (k) of this AD.

(i) Terminating Action for Paragraph (c) of AD 2001-03-05

Accomplishing the revision of the existing inspection program required by paragraph (g) of this AD terminates the requirements of paragraph (c) of AD 2001-03-05.

(j) Special Flight Permit

Special flight permits may be issued in accordance with 14 CFR 21.197 and 21.199 to operate the airplane to a location where the airplane can be inspected, provided the airplane is restricted from flying into known icing conditions.

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Wichita ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (l)(1) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(l) Related Information

(1) For more information about this AD, contact Adam Hein, Aerospace Engineer, Mechanical Systems and Propulsion Section, FAA, Wichita ACO Branch, 1801 S Airport Road, Wichita, KS 67209; telephone (316) 946-4116; email: adam.hein@faa.gov.

(2) For service information identified in this AD, contact Learjet, Inc., One Learjet Way, Wichita, KS 67209-2942; telephone 316-946-2000; fax 316-946-2220; email ac.ict@aero.bombardier.com; Internet www.bombardier.com. You may view this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued on July 29, 2022.

Christina Underwood, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2022-16680 Filed: 8/10/2022 8:45 am; Publication Date: 8/11/2022]